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ABSTRACT

A preliminary study is reported which attempted to define gifted rapid readers, authenticate the performances of three subjects who were designated as gifted rapid readers, and explore the relationship of a subject's ability to perceive print eidetically and to read and/or skim. Volunteer subjects were a 15-year-old girl from the Philippines, a 12-year-old American girl, and a 38-year-old housewife. Impartial reading experts observed each subject reading an article on mental health by Menninger. The article was estimated to be college level of difficulty and was selected from Brown's "Efficient Reading." All three subjects successfully absorbed the article at rates beyond 20,000 words per minute with 70 percent comprehension or above. The two younger subjects demonstrated characteristics similar to those described by Haber as highly eidetic. Both young subjects also demonstrated strong dominance traits, according to Butt's Factoral Facet Scale. References are included. (WB)

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GIFTED RAPID READERS

BY

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One hundred years having passed since Sir Francis Galton's milestone, Hereditary Genius, was written, it seems appropriate to initiate a study of gifted rapid reading. Over a four year period, the writer has observed that 1 per cent of her total enrollees in rapid reading classes, conducted in the Evening Divisions of Northwestern University, is able to read and skim nonfictional articles at exceptional rates with more than adequate comprehension. The writer feels it is time to share her observations with others and to encourage them also to explore the components of such a phenomenon.

Purpose of the Study: The purpose of this preliminary study was to: 1) define gifted rapid reading, 2) authenticate the performances of three subjects who are designated as gifted rapid readers in this study, and 3) explore the relationship of a subject's ability to perceive print eidetically and to read and/or skim.

Background of the Study: In the past century, little has been done to study gifted readers of any description. Yet, the "glance-at-a-page" phenomenon appears historically among some famous people. For example, President Theodore Roosevelt is said to have astonished his constituents by glancing at a page and requesting his audience to ask him questions about it.

At the Twelfth National Reading Conference, Adams first defined a "supernormal reader" as anyone who could achieve a rate over 1500 words per minute with good comprehension on a form of the standardized Diagnostic Reading Test.[1] Since then, there has been much controversy about rapid reading because of sensational claims advertised by commercial reading organizations. The "hard sell" advertising plus little scientific study of the phenomenon seems to have blocked further enlightenment in this aspect of the total reading process.

Perhaps the physical limitations of the eye movement studies themselves have temporarily halted study. Based on eye movements of average readers reading in the traditional manner, S. E. Taylor reported that the average person can accommodate clearly only a total span of 1.25 inches in one fixation (glance). In 1963, Taylor speculated that superior

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1. Buchanan R. Adams, "The Phenomenon of Supernormal Reading Ability." In Ralph E. Staiger and Culbreth J. Melton (Eds) Twelfth Yearbook of the National Reading Conference, Milwaukee: The National Reading Conference, Inc., 1963, 13:133.

readers might read horizontally at minimum rates of merely 900 w.p.m. and actually be seeing all the words.[1] This means physiologically, they are limited to grasping 2.7 words in their span of recognition at the average speed of 1/5 second. But many fail to realize the 1/5 second speed is the habitual rate of speaking used during oral reading. It may be a habitual rate rather than a physiological limitation. What is more, there may have been a limitation within the camera then being used. Future improvement in electronic equipment may reveal more information. However, a point hardly explored is the eidetic imagery phenomenon. Sir Francis Galton pondered it one hundred years ago.[2] This may help explain the exceptional performance of some extremely good rapid readers.

This year Haber released a final report on "Eidetic Imagery in Children."[3] In it, he describes children with varying degrees of ability who can see a picture and its details as if they were still viewing it. He distinquishes these eidetic children from others by observations that the eidetics are not recalling details from memory, but they appear to perform the physical act of seeing the pictures when describing them. The eidetic images (E.I.) last significantly longer than the usual after-images (A.I.) experienced by most sighted persons.

He also speculates that children with highly developed eidetic imagery probably do not possess "photographic memory" as it has previously been defined. The eidetics can describe remarkable detail in pictures as if still viewing them; but parts of the picture usually are blurred. Therefore, they do not have total recall, but can usually guess the missing parts (this is the principle of closure as understood in gestalt psychology.)

Procedure Used in the Study:

A. Selection of the Subjects: During seventeen years of teaching developmental reading at all levels beyond grade four, the writer has given individualized instruction to over 4,000 students. While teaching at Northwestern University in 1963, she developed an eclectic approach for teaching accelerated reading with comprehension. The Reinforced Reading System was founded on relevant aspects of psychological principles including operant conditioning procedures, reinforcement, closure and transfer. Using this system, she observed that gifted rapid readers (who can maintain 70 per cent or above comprehension at rates above 20,000 w.p.m. on Brown's workbook, Efficient Reading,) appear in her classes at a rate of 1 out of 100 or 1 per cent of the trained population.

During the past four years, 15 subjects were identified as gifted, according to the

1. Sanford E. Taylor, Eye Movements and Reading: Facts and Fallacies, E. D. L. Reading Newsletter, No. 30. Huntington: Educational Developmental Laboratories, 1963, P. 13
2. Sir Francis Galton, Hereditary Genius, Macmillan Company (London), 1869.
3. Ralph N. Haber, Eidetic Imagery in Children, Final Report Project No. 5-0361, U.S. Department of Health, Education, and Welfare (Office of Education, Bureau of Research,) February 1, 1969.

above criterion. Three of them, subject M.T.C., a 15 year old girl from the Philippines, subject R.D.B., a 12 year old American girl, and subject J.D., a 38 year old housewife, volunteered for this preliminary study.[1] The reading behavior of each was observed by impartial reading experts from two other universities.[2]

When subject M.T.C. entered the U.S., she was administered an intelligence test. She was classified as average, but the test culturally was biased in favor of American citizens. M.T.C. was in the U.S.A. only a few months before the testing. Although she spoke English, Tagalog was her native tongue. She had finished her sophomore year in an American parochial boarding school, and was in the U.S.A. nine months before taking the rapid reading course. After the course, she was sent to Dr. Bernard Harris, of the University of Platteville in Wisconsin, for further testing. She ranked in the lower 5 per cent level of gifted, according to Terman's Concept Mastery Test. On the Weschler-Bellevue Adult Intelligence Scale, her total score was Bright Normal. The Performance scale was, of course, higher than the Verbal. On the Picture Aptitude sub-test, however, M.T.C. had the highest possible score. Harris concluded she had "photographic memory."

Immediately after the course in 1968, the standardized Nelson-Denny Reading Test, Form A, was administered. She read at a rate of 8,520 w.p.m. (99+ percentile rank) with a comprehension percentile rank of 81 for her norms. Her vocabulary rank was at the 80 percentile. One year later, in a follow-up study, she was administered the Diagnostic Reading Test, Form A for grades 7-13, another standardized test. She absorbed the pages at a rate exceeding 41,000 w.p.m. with 85 per cent comprehension.

Subject R.D.B., the seventh grade pupil, had an I.Q. in the Superior range of the P.M.A. test before instruction in rapid reading in the autumn of 1968. At that time, her reading scores on the S.R.A. Reading Achievement Test were: Vocabulary 9.3 (48th percentile,) comprehension 7.4 (73rd percentile,) and a composite grade equivalent of 10.2.

Subject J.D., the housewife who enrolled in the Rapid Reading class, was in the Bright Normal range on the WAIS. But she did not feel well when this test was administered. Further testing will be conducted. However, she did achieve a rate over 4,200 w.p.m. with a 99+ percentile of comprehension on a form of the standardized Nelson-Denny Reading Test, after a day of testing.

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1. Mr. James Doran, of the McHenry, Illinois Public School System, used the writer's 2R (Reinforced Reading) Method with his seventh grade class and discovered gifted subject R.D.B.
2. On Feb. 4, 1969, subject M.T.C. was tested at the University of Minnesota by Doctors J. I. Brown, A. Raygor, and D. Wark. On Feb. 12, 1969, subjects R.D.B. and J.D. were tested at Purdue University by Doctors M. May and G. Schick and their research assistants.

B. The Measuring Instruments: Since the subjects practiced on Brown's Efficient Reading, essays from his Alternate Edition and from an out-of-print older edition were selected at random for this preliminary study. Brown determined the difficulty level of each article by applying the Flesch Readability Scale. An article by Menninger on mental health was selected and estimated to be the college level of difficulty.[1]

C. Questions to be Answered: The specific questions to be answered in this study were:

a) What criteria should be required for classification as clearly gifted in rapid reading?

b) Barring limitations, could three subjects who met the criteria in (a) demonstrate their skill before impartial reading experts?

c) Is there a relationship between the highly developed reading and skimming ability of the three subjects and highly developed eidetic imagery?

The Findings: All three subjects -- M.T.C. at the University of Minnesota, and R.D.B. and J.D. at Purdue University -- successfully absorbed the article by Menninger at rates beyond 20,000 w.p.m. with 70 per cent comprehension or above. In fact, both M.T.C. and R.D.B. viewed two columns simultaneously. If, indeed, they have developed eidetic ability, this finding and the astonishing rates at which the article was read begins to be understandable.

Discussion:

After the testing, preliminary interviews were conducted with each subject and her parents. In the case of the Filipina subject, M.T.C., it was revealed that her mother was a former college history professor and had an extraordinary memory. At the dinner table, the mother designed a game to determine who could remember names, persons, treaties, dates, and so forth best, M.T.C. or her brother. Apparently, M.T.C.'s unusual retentive ability was developed earlier and more intently than that of most pupils. Both heredity and environment tend to be involved in M.T.C.'s phenomenal development.

Moreover, in the case of 12 year old American subject R.D.B., she also had an unusual relative. Her maternal grandmother, who was tested at the University of Michigan, demonstrated giftedness in non-verbal abilities. Since she migrated to the U.S.A., unable to read, no verbal scores could be obtained. Partly because of this, R.D.B.'s mother worked intently with R.D.B. and her brother in regard to their schoolwork. Again, heredity and an encouraging environment seem important factors in the reading success of this particular subject.

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1. J. I. Brown studied the performance of over 100 adult students in previous classes on this article. Results handed in at the beginning, middle, and end of his course were averaged for rate and comprehension (430+ w.p.m. and 68.5 per cent.)

Besides evidence of superior ability to recall most of what was read, or highly developed eidetic memory, both subjects demonstrated strong dominance traits, according to Butt's Factoral Facet Scale[1] test. Incidentally, visual examinations, given by local refractionists, found both subjects had excellent eyesight. Undoubtedly, there are other factors present to explain the phenomenal ability of "glance-at-a-page" reading, and they will be explored with further testing in the coming year.

Limitations of the Subjects: Again, only preliminary analyses have been made of the reading abilities of M.T.C., R.D.B., and J.D. A larger study will control more rigidly studies with the potential and limitations of 15 rapid readers defined as gifted in this study. Thus far, only the success of each subject has been described, for they did indeed demonstrate the achievement questioned in this study. But it was reasoned from the beginning that it would be unrealistic to expect the subjects to read and skim every type of written material with excellent comprehension and retention.

Informally, M.T.C. was given a page from a directory of members of the American Psychological Association by Dr. Alton Raygor, of the University of Minnesota, and was asked to find his name on it. He said she recalled most of the information regarding his name, but little more about the page. She said the page was meaningless to her. On the other hand, when given five seconds to recall almost a complete page of 19 oddly designed faces, she gained almost total recall. Her comment was that it was easier to recall pictures. As she commented during the testing using only one eye, if the material being read is somewhat familiar, certain words stand out from a page and a meaningful pattern is grasped. Gestalt psychology suggests that the principle of closure operates in human perception. Moreover, these comments are similar to those of subjects with highly developed eidetic imagery in Haber's study, cited earlier.

In addition, while at the University of Minnesota, M.T.C. hurriedly was given an article with three columns per page pertaining to the mechanical operations of an automobile. After successfully grasping two columns of an essay for Brown, who also was present, she tried to read three at once and failed. Her comprehension appeared to be a guessing score of 30 per cent. Moreover, she expressed a strong dislike for mechanical knowledge, an attitude shared by many teenage girls. In this case, her ability to interpret meaningful responses obviously was limited. On another test article being developed for publication, she was told to read it word-for-word. But she did not resist the challenge for trying higher rates, and, of course, found such speed inappropriate. Her rate was about 2,300 w.p.m. with 40 per cent comprehension. The principle of homeostasis

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1. D. Susan Butt, "A Comparison of Measurement Strategies In Developing Scales for Dominance," Unpublished Doctoral Dissertation, University of Chicago, August, 1967, p. 171

seemed to be operating. After the pressure of attaining success on Brown's article (the goal for verification of M.T.C.'s skill) the usual drop of energy ensued. She should have relaxed. As her plane was to leave shortly, other informal tests were given too hastily.

Further investigations disclosed M.T.C. often could discuss intelligently what she read from her excellent recall and ability to "gestalt." Yet, she quite honestly would observe, "I usually can recall confidently what the author said, but if I have no background on a topic, I can't tell you what he means." [1]

This commentary also applies to R.D.B. She passed all tests pertaining to general knowledge with excellent comprehension after reading at "glance-at-a-page" rates. Moreover, she claims to have excellent recall of paragraphs the size of half the ordinary pocket novel page. But she, too, experiences some blurring usually on the left side of the page.

However, she was given a 2,000 word article to read and 28 assorted types of questions at Purdue University by Dr. George Schick and Dr. Merrill May. She scanned two adjoining pages at once at a rate over 60,000 w.p.m. and being unprepared for the types of questions asked, attained only 52 per cent comprehension. This was so inconsistent with her usual behavior, that she looked up her mistakes, reread the article and requested another challenge. Maintaining the same rate, she increased her comprehension to 72 per cent on this article. She requested a third challenge, but her examiner thought it unnecessary.

Subject J.D. said she did not wish to be challenged beyond the formal testing. She enjoys reading and rarely has occasion to read at phenomenal rates. Nevertheless, she wanted to experiment with how far she could extend her abilities in the course. At an earlier age, she thought she had an almost photographic memory.

Summary and Conclusions:

1) A gifted rapid reader according to this preliminary study, can absorb essays of general knowledge from Brown's Efficient Reading, at rates of 20,000 w.p.m. with 70 per cent or better comprehension. They also can achieve 1,500 w.p.m. or above with good comprehension on standardized tests.

2) The three subjects in this study did achieve at least the above rates of 20,000 w.p.m. with 70 per cent or better comprehension on an article from Brown's Efficient Reading before impartial reading experts.

3) At least two of the three subjects demonstrated characteristics similar to those described as highly eidetic in Haber's study mentioned earlier.

1. In the December 15, 1968 edition of The Milwaukee Journal, editor William C. Nelson describes a surprise visit to subject M.T.C. at her boarding school. He states she read a chapter for him in the pocket book, "How to Buy Stocks." M.T.C. glanced at each page and then asked him to quiz her. "Her answers were correct-and in detail." But she said she didn't understand everything she could vividly recall.

4) Strong dominance traits were evident in testing.

The combination of factors which have produced giftedness in rapid reading under ideal conditions is still in need of clarification. This study is a beginning. But more scientific data must be gathered and examined before definite conclusions can be drawn.

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